



SUSTAINABLE PLANNING in the *ENERGY TRANSITION*

EyeOn industry report for supply chain leaders:
Accelerating time-to-value in the energy transition





In today's constantly changing and complex global environment, senior leaders are under pressure to **deliver faster, smarter and more reliable** operations while continuously **creating business value**. Companies embark on transformations to develop **sustainable** future-proof planning capabilities. They leverage digital technologies and data analytics to guide decision-making, **optimize performance, and at the same be more sustainable and agile in conditions**.



To better understand how organizations could navigate this process, **we compiled a report for for companies driving and impacted the energy energy sector**. The insights reveal the common motivations and challenges, as well as insightful learnings and the key elements required throughout the transformation journey.



This report captures insights to help **organizations accelerate time-to-value**. report is guided by the expertise of EyeOn, thought leaders in supply chain transformation, who bring a practitioner's perspective to this critical business topic. By André Vriens, Arnaud Simeray



The Shifting Energy Landscape

Clean energy attracting more investments than fossil fuels

In 2025, global energy investment will reach USD 3.3 trillion, with USD 2.2 trillion (clean energy)—twice the USD 1.1 trillion for fossil fuels

Electrification growth diverges across regions

China now leads with ~30% of final energy use electrified, compared to ~25% in Europe and ~18–20% in the U.S. (Ember, 2024)

Scaling clean tech at different speeds worldwide

With ~65% of global EV sales in 2025, China drives scale, while Europe grows steadily at ~25% year-on-year, showing uneven regional momentum. (PwC, 2025)



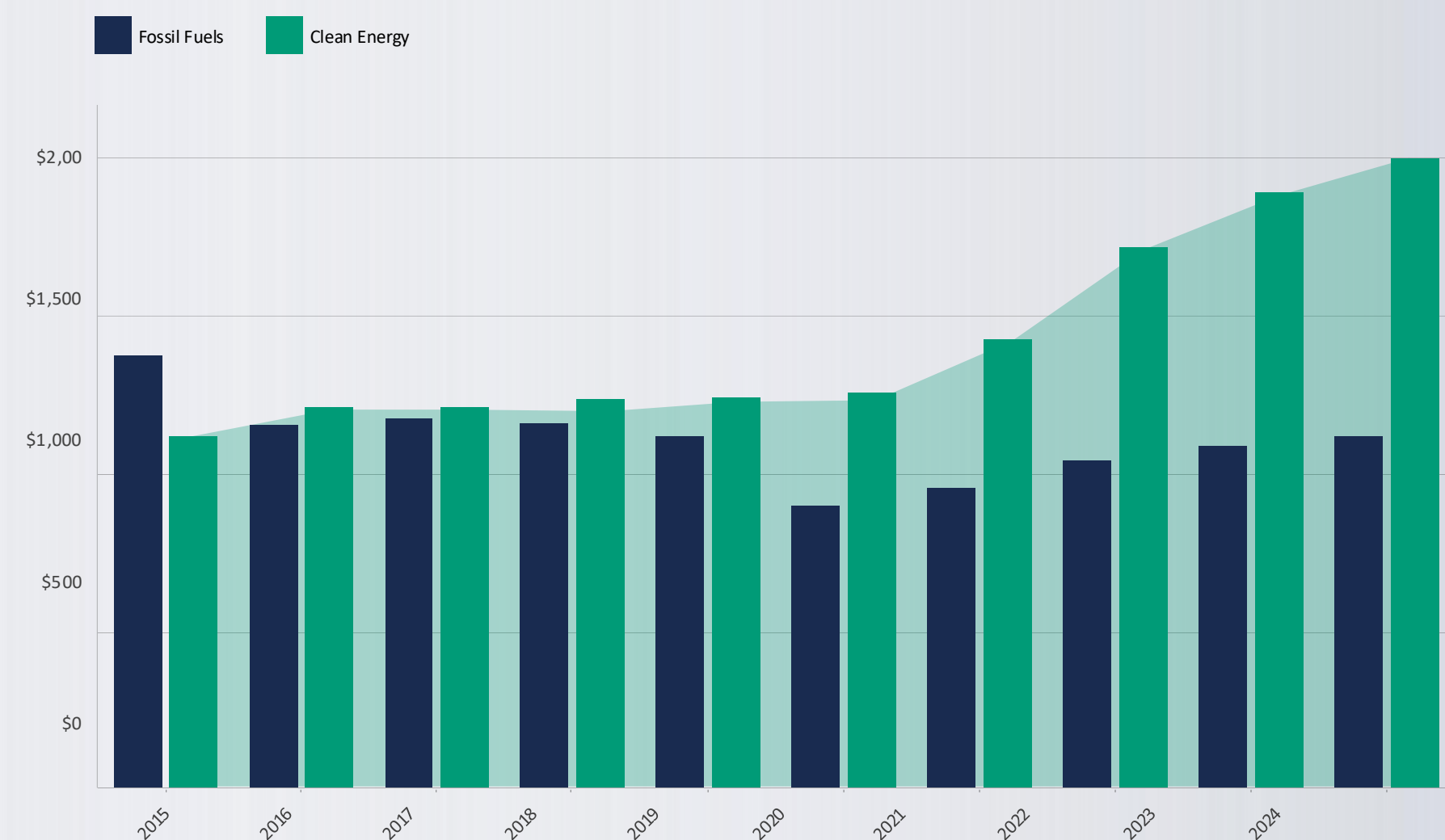
Clean Energy



Electrification



Scalability



Source: World Energy Investment 2024





Electrification
expanding
beyond lighting
and machinery

Until recently, these accounted for only 14% of final energy demand; now transport and low-temperature heating are scaling



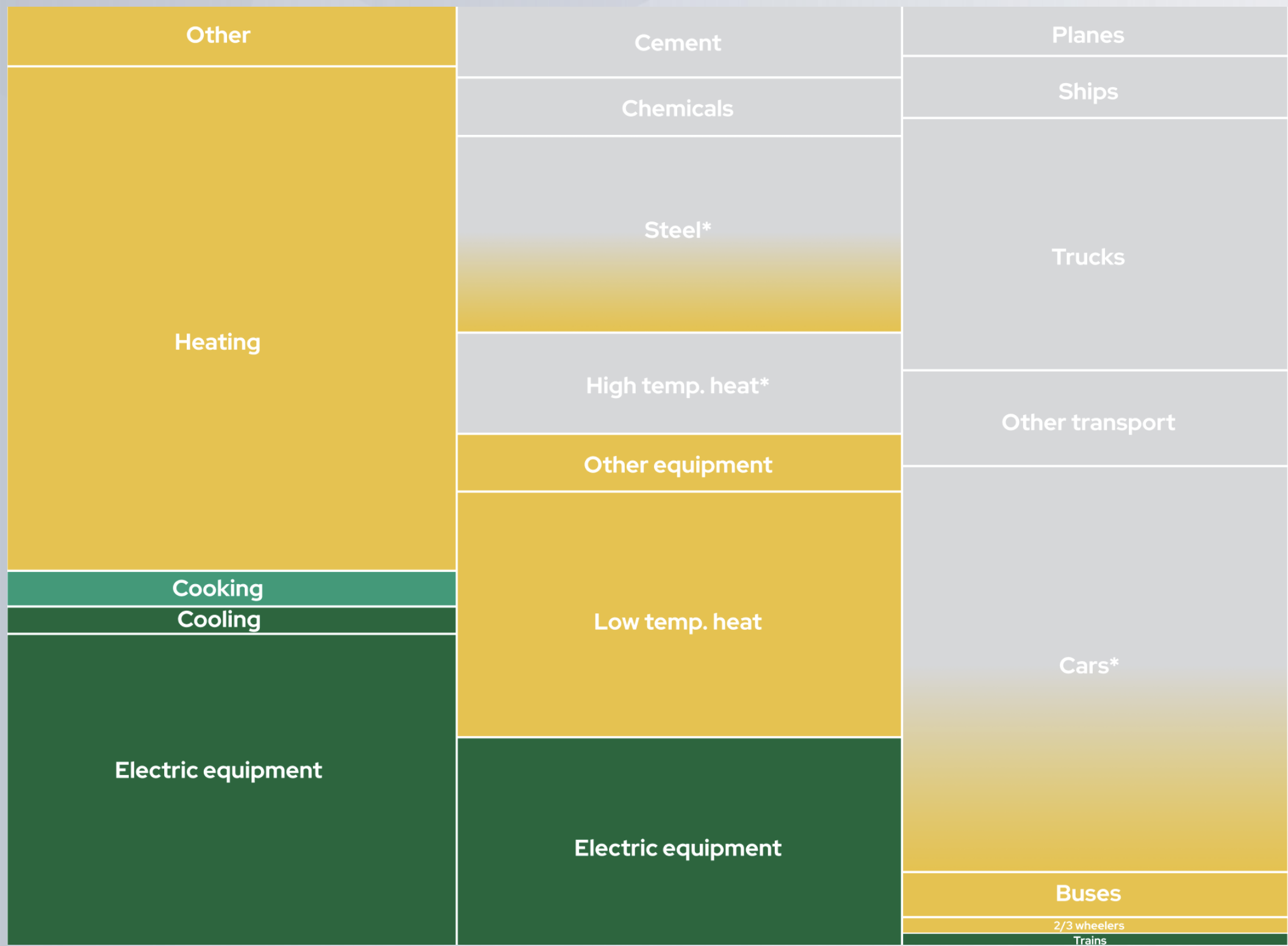
EVs, heat pumps,
electric motors have
scaled rapidly

Technology costs have dropped
sharply, unlocking road transport and heating



2000

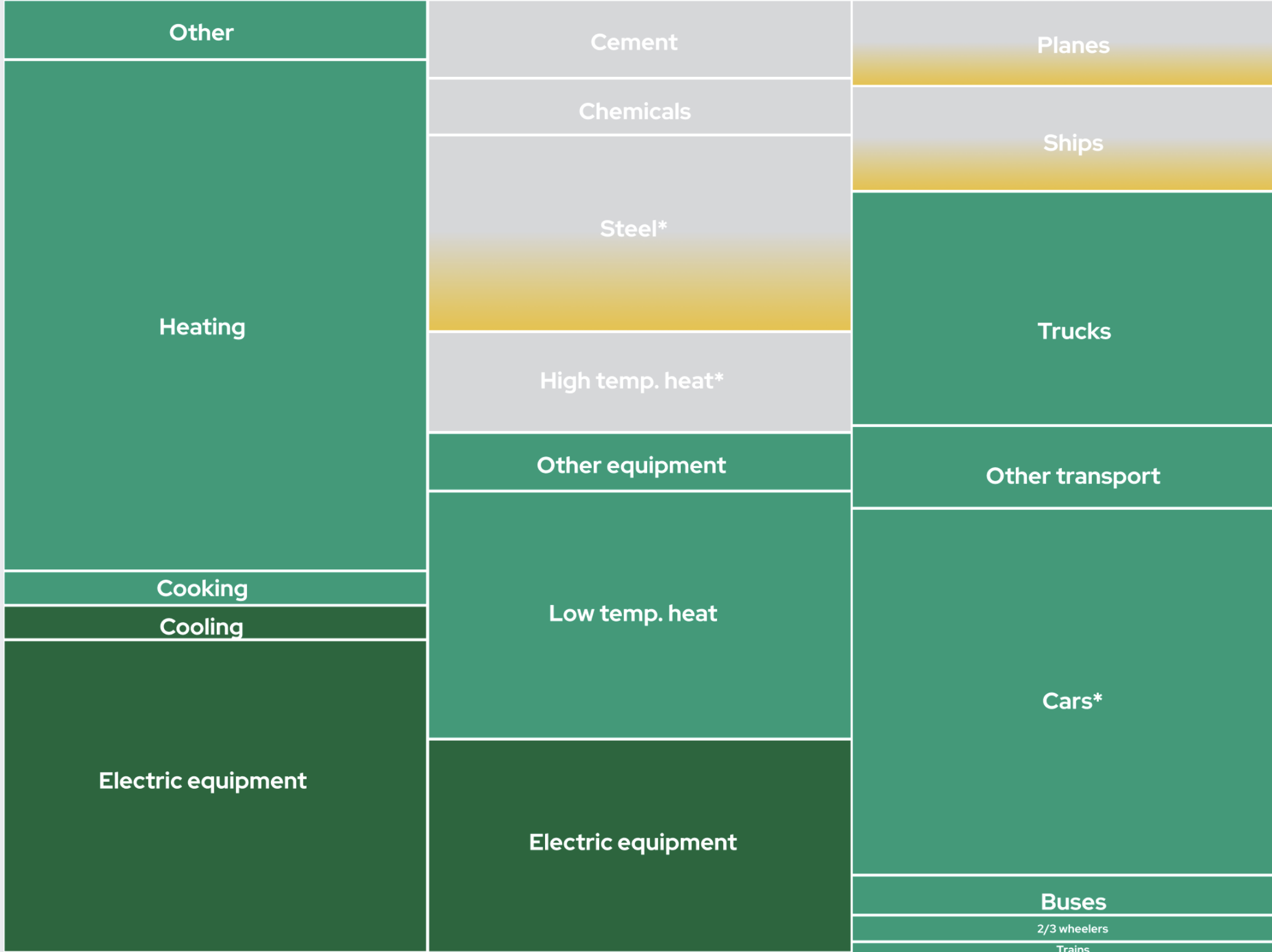
2025



Buildings

Industry

Transport



Buildings

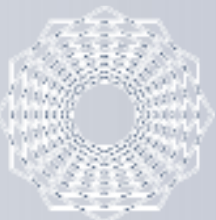
Industry

Transport

- Already (largely) electrified
- Can be electrified economically
- Can be electrified technically
- Still under development

*Sources: IIASA; IEA; BloombergNEF; Ember analysis – Note: excluding feedstock Technologies available for subset of total end-use (e.g., only for shorter ranges in cars)

EMBER



Integrated & Circular Supply Chain Planning is Essential

The electrotech revolution

A revolution in how we generate, connect and use electrons for our energy system



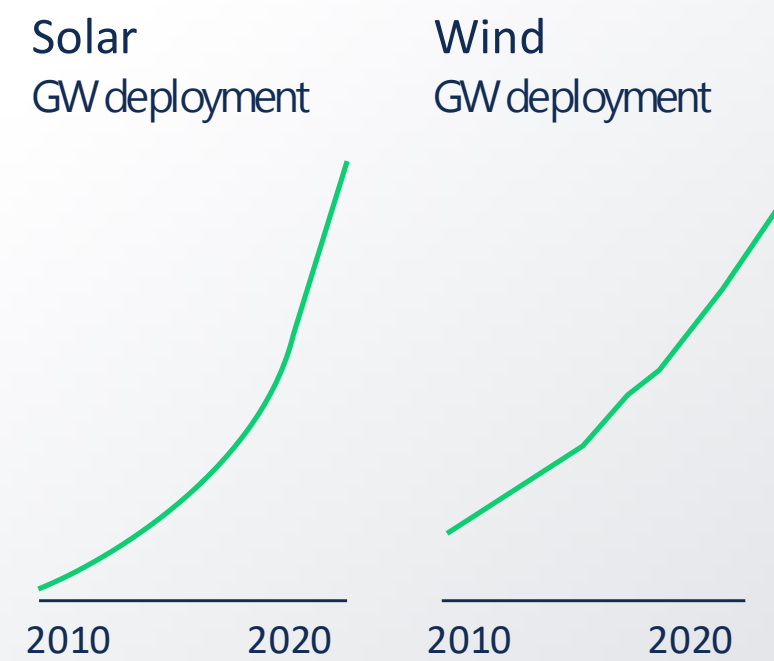
Vector of
change

Examples of
rapidly growing
electric
technologies

Revolutionary
change

Solar = Supply

Renewables



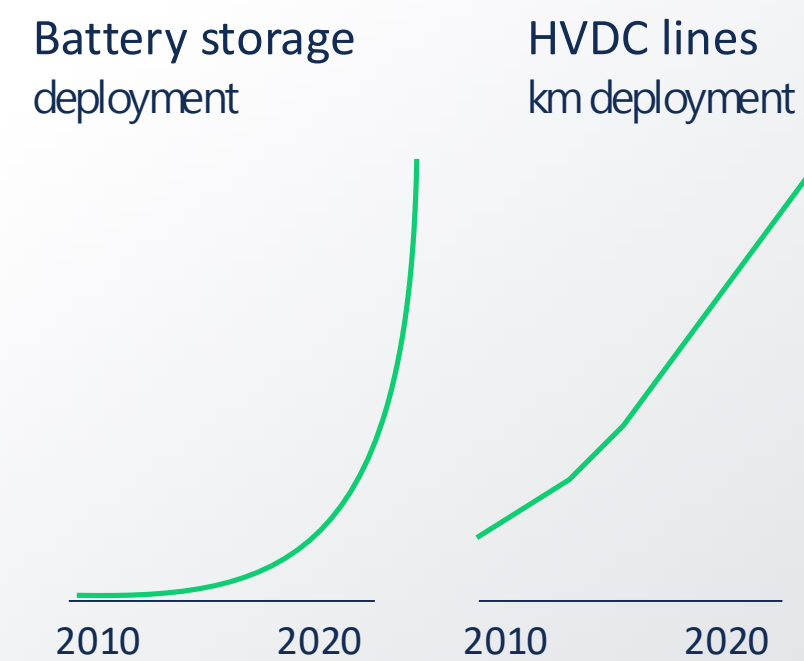
New ways to generate electricity

Supply under pressure

Global bottlenecks and scarce capacity in grids, storage, and critical equipment — aggravated by policy resets and shifting subsidies that change investment flows

Connections

Flextech & gridtech



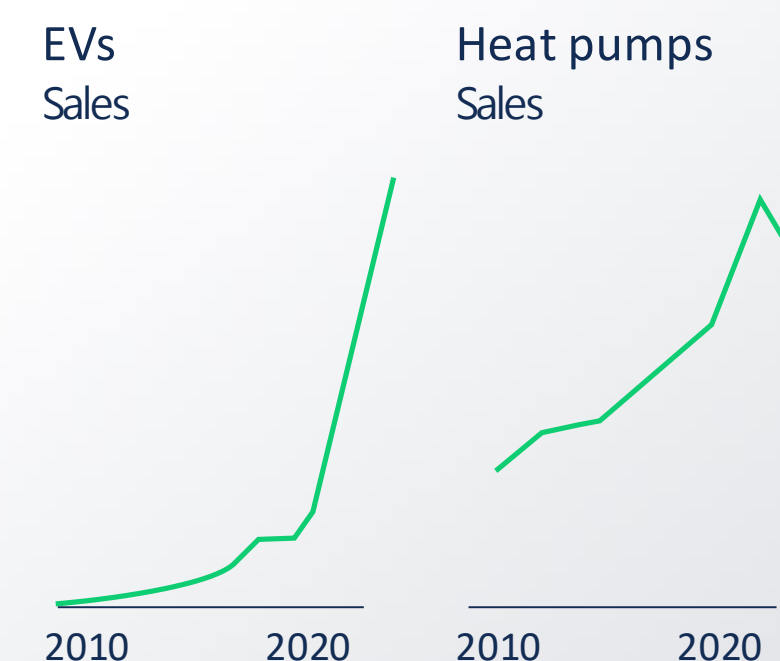
New ways to transport and store electricity

Connection is the critical link

Grid congestion is the #1 #1 barrier: in Europe, 1,000+ GW of renewables await grid connection. Regulatory approvals and infrastructure delays slow down integration

Demand

Electrification



New ways to use electricity

Demand keeps accelerating

EVs, heat pumps, and electrification are driving electricity demand up >25% by 2030. ESG targets and reporting rules further raise the bar on how demand is met



A Connected Energy System

The future of energy depends not only on innovation within each layer but also on how generation, storage & distribution, and consumption interact to create a resilient ecosystem.



Energy Generation

- Renewable Energy Generation Equipment
- Renewable Fuels
- Hydrogen Production & Distribution
- Carbon Capture and Storage (CCS)



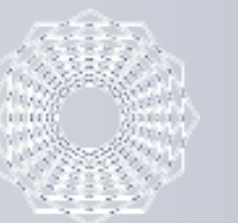
Energy Storage & Distribution

- Energy Storage
- Electrification Networks & Grid Infrastructure
- Infrastructure Development (EPC, Offshore Installations)



Energy Consumption

- Electric Mobility (EVs & Charging Infrastructure)
- Heat Pumps & Thermal Energy
- Recycling & Circular Economy
- Energy Efficiency Technologies
- Software & Digital Solutions



Strategic Re-alignment

Yesterday's supply chains cannot survive tomorrow

Supply chain use cases go beyond traditional optimisation.

New trade-offs required to balance

cost <> service <> resilience <> sustainability

Cost effectiveness is traded off with customer service, risk resilience, complexity, and *sustainability*.

Constant redesign in response to uncertainty

Increasing uncertainty of business conditions require continuous & continuous & structural review of design & flows.



Key Drivers for *Transformation*



⬡ Navigate Complexity & Volatility

Manage market uncertainty, geopolitical shifts, and supply risks without slowing the energy transition transition

⬡ Improve Visibility & Control

Gain real-time transparency across the end-to-end chain to balance business and sustainability goals goals

⬡ Enable Sustainable Growth

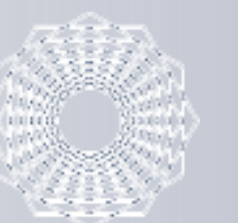
Deliver on the strategic mandate for a greener future while securing long-term business growth

⬡ Balance Business & ESG Targets

Align service, cost, and cash performance with environmental and social commitments for a circular supply chain supply chain

⬡ Advance Digital Capabilities

Replace outdated systems with smart, data-driven planning that enables resilience and low-carbon choices



Time-to-value in digital supply chain transformations



EyeOn's end-to-end *circular value framework*

VALUE DISCOVERY

Define an actionable transformation framework

-  Translate strategy to an actionable plan
-  Design operating model
-  Assess transformation readiness
-  Apply circular value hill approach

VALUE CREATION

Design future proof planning capabilities

-  Pilot and learn
-  Readiness (Process, Data, Roles)
-  Design & develop digital solutions
-  Integral (Cross) company end to end alignment of targets and plans

VALUE REALIZATION

Implementing change and ensuring business impact

-  Deploy digital solutions
-  Bridge skill gaps
-  Results-driven steering
-  Add sustainable & circular value incentives and measure

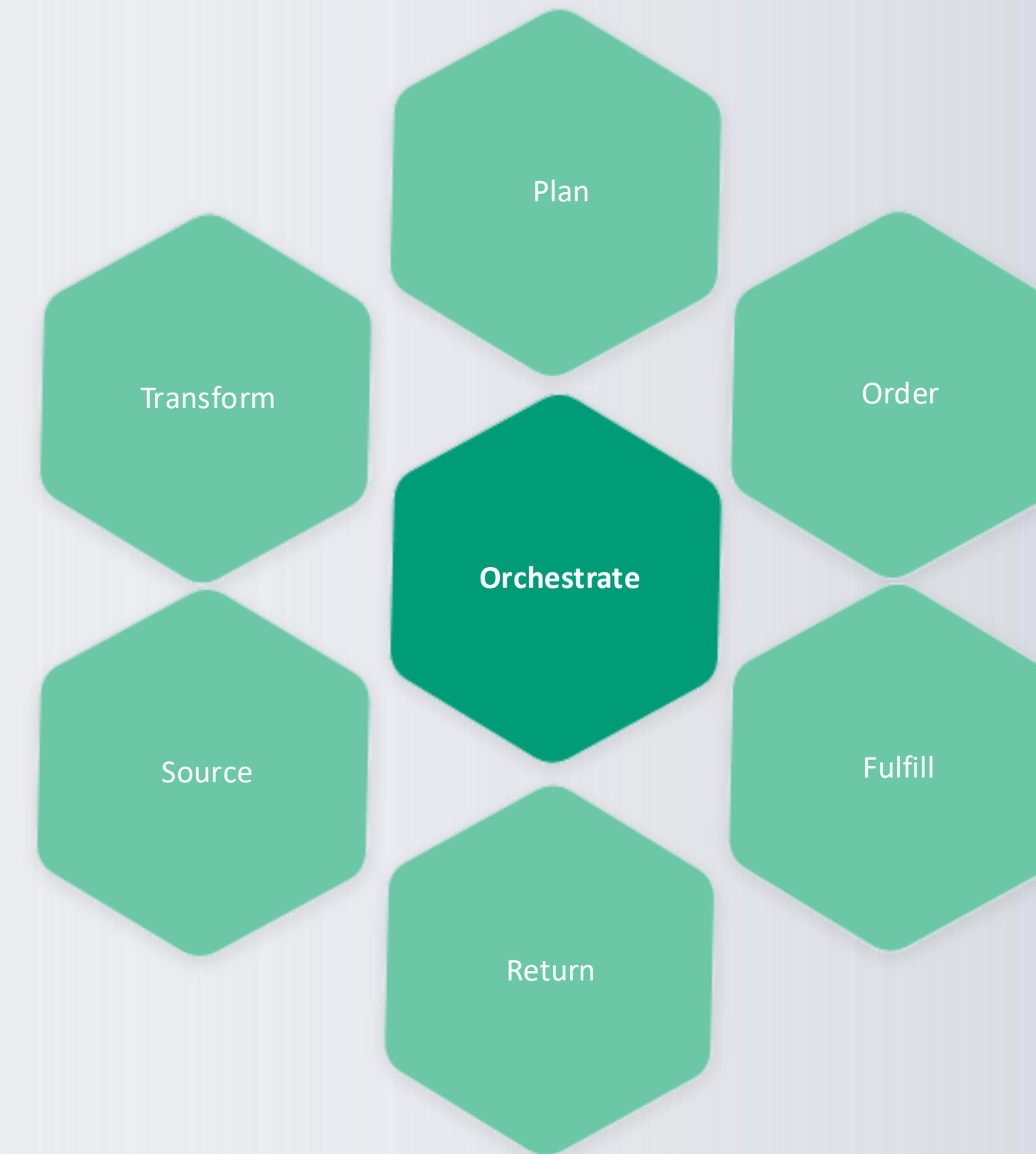
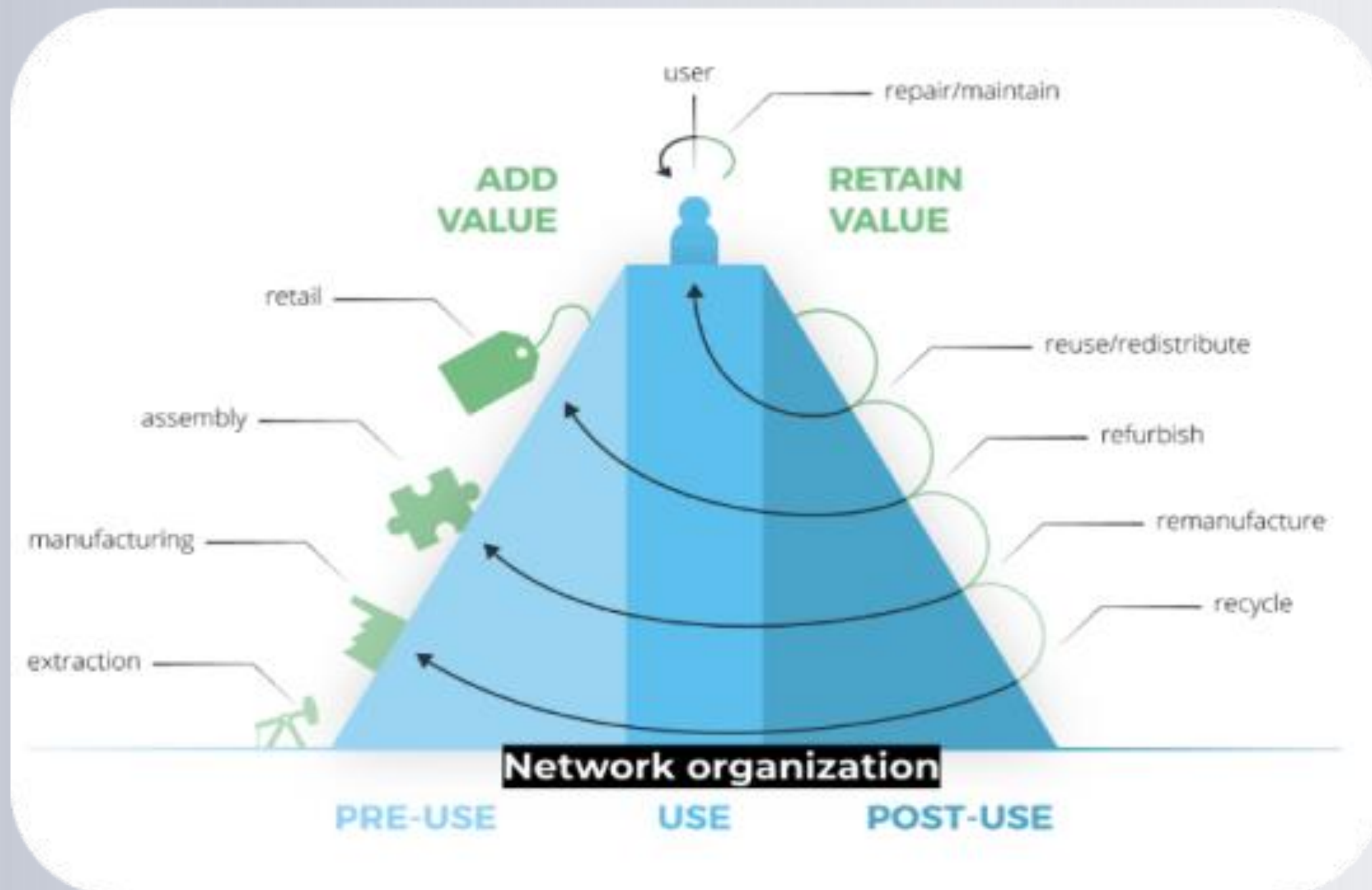


From Linear Thinking to Circular Value Planning

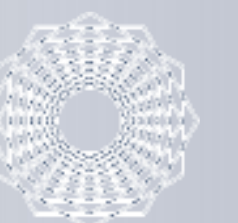
Traditional linear supply chains (take → make → use → dispose) are no longer longer fit for the energy transition

A circular framework integrates planning across all horizons→ Long term chain design), mid term (S&OP and balancing), and short term (day-operations)

It connects across the full value chain→ Connecting upstream suppliers and and downstream customers to align materials, production, demand, and and operations



End-to-end alignment reduces waste, improves resilience, and accelerates sustainability goals



EXAMPLE

Energy hub design & planning

→• About

An energy hub is a smart, decentralized system combining renewable generation, storage, and demand to balance local supply and demand

🏠 Challenge

- Grid congestion and static capacity constraints limiting flexibility
- Seasonal shortages due to renewable intermittency
- Need to optimize local energy flows while reducing costs & emissions

🔗 Approach

- Designed a blueprint model to simulate hub configurations
- Balanced renewable input, storage, and peak-shaving strategies
- Integrated local demand patterns, resource availability, and grid constraints

📁 Results

- Optimized investment in storage and grid infrastructure
- Reduced energy costs and congestion risks
- Enabled higher renewable integration and regional self-sufficiency



EXAMPLE

APS - Target Operating Model

Ready for the future: building a dual target operating model for Hilti

→• About

Hilti is a leading global provider of innovative products, services and software solutions for construction professionals.

🏠 Challenge

Hilti is a leading global provider of innovative products, services and software solutions for construction professionals.

🔗 Approach

EyeOn supported in the design of a dual Target Operating Model (TOM) and improvement roadmap that addresses Hilti's unique planning challenges.

📁 Results

Hilti is now equipped with a Target Operating Model (TOM) and an actionable roadmap actionable roadmap for transformative & sustainable supply chain improvements.

EyeOn brought invaluable expertise and strategic insight to this project. They understood our unique challenges and guided us in developing a dual model that balances efficiency with flexibility. Their recommendations for a segmented supply chain and advanced planning roadmap provided us with a clear, actionable plan to future-proof our operations — with quick wins and early results already visible.

Roeland Baaijens
EVP Global Logistics



EXAMPLE

Inventory & service level optimization

Data-driven inventory optimization

→ About

A leading European company in the energy sector, operating critical electricity and gas infrastructure to ensure reliable delivery from producers to end-users

📈 Challenge

- 5,000+ active items with €150+M inventory value
- Risk of delays in building/maintaining infrastructure
- Manual Excel-based tools seen as inefficient and error-prone

🔗 Approach

- Applied data-driven, multi-echelon inventory right-sizing
- Differentiated service levels across product groups
- Built clear scenario planning procedures and policies for inventory health

📁 Results

- Identified stock reduction potential and cost savings
- Improved service levels and reduced downtime risk
- Delivered actionable system enhancement roadmap for sustainable improvements



EXAMPLE

Architectural vision and implementation support

Planning System Implementation

→• About

A leading European company in the energy sector, operating as a regulated electricity and gas infrastructure operator.

📈 Challenge

- Growing energy transition workload strained existing planning processes
- Fragmented demand and supply planning across units and regions
- Limited transparency on capacity and resource bottlenecks

🔗 Approach

- Introduced a structured S&OP process for asset projects and grid operations
- Built an advanced planning platform, linking demand and capacity parameters
- Defined planning levers and dashboards to guide decisions

📁 Results

- Transparent and structured planning with clear governance
- Better capacity allocation and reduced demand–supply mismatches
- Scenario planning and dashboards enabling flexibility and future readiness



EXAMPLE

Greening the supply chain-sustainable KPI's

Track sustainable KPI's , measure progresa , optimise & take action

→• About

A leading multinational company needed to track and improve its sustainability performance while performance while maintaining business efficiency

🏠 Challenge

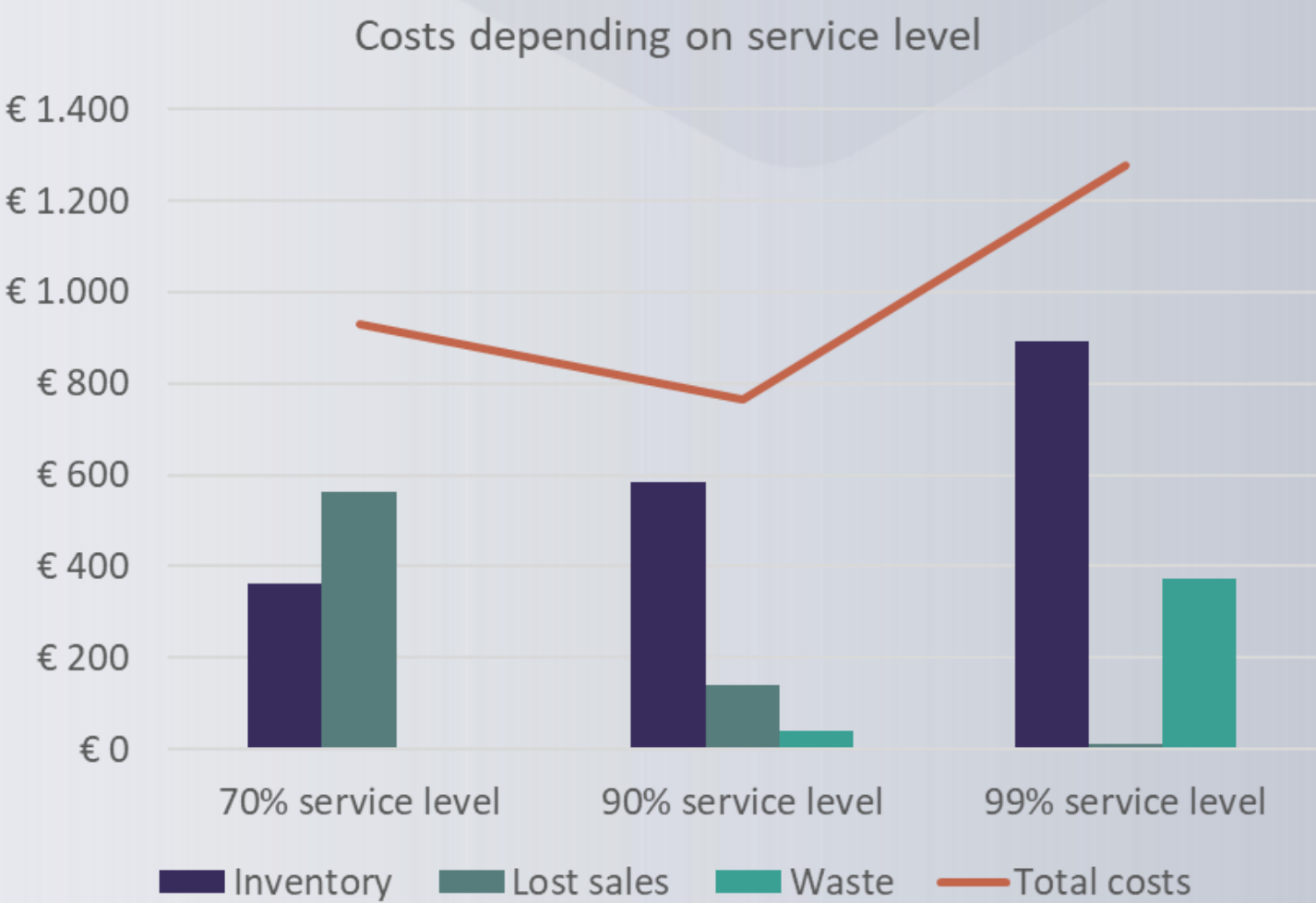
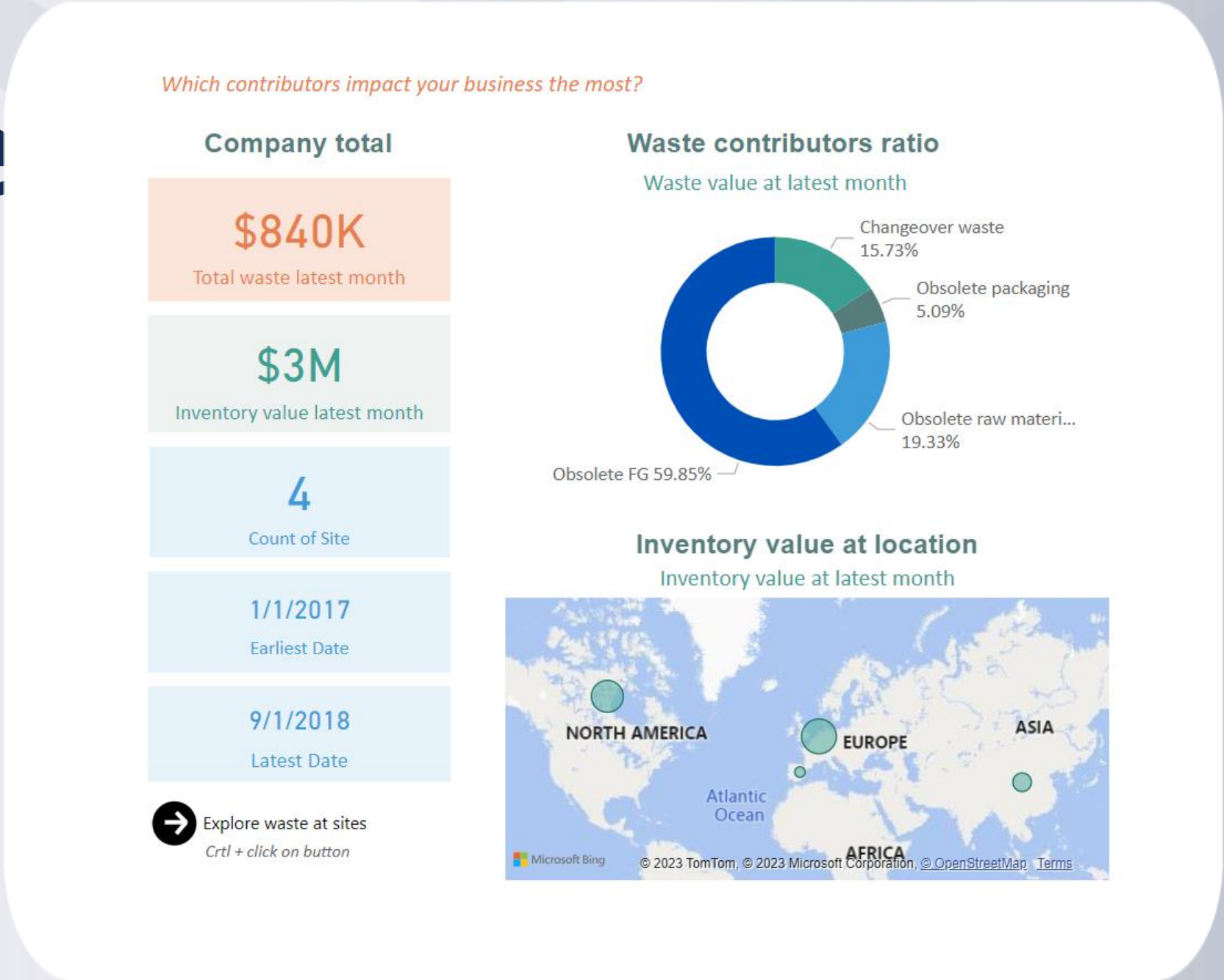
- Lack of transparency on CO₂ emissions across operations and logistics
- No clear view on waste contributor impact and obsolete inventory
- Supply chain network not aligned with sustainability and resilience goals

🔗 Approach

- Designed an integrated sustainability KPI dashboard with clear metrics and drill-downs
- Developed a CO₂ emission tracker to monitor footprint across production and transport
- Built an integral model highlighting service, waste, obsolete stocks, and supply chain costs
- Supported network redesign scenarios to balance service, cost, and sustainability

📁 Results

- Clear visibility on CO₂ hotspots with measurable reduction targets
- Data-driven redesign of supply chain network, cutting emissions while improving resilience
- Sustainable KPI reporting embedded into the company's processes



Smarter end-to-end
circular planning
delivers concrete
improvements and is
*key enabler for
sustainable business
success*

- End-to-End Transformation
- Sustainable value chains
- Future supply chain design
- S&OP/IBP
- Forecasting & Demand management
- Inventory optimization





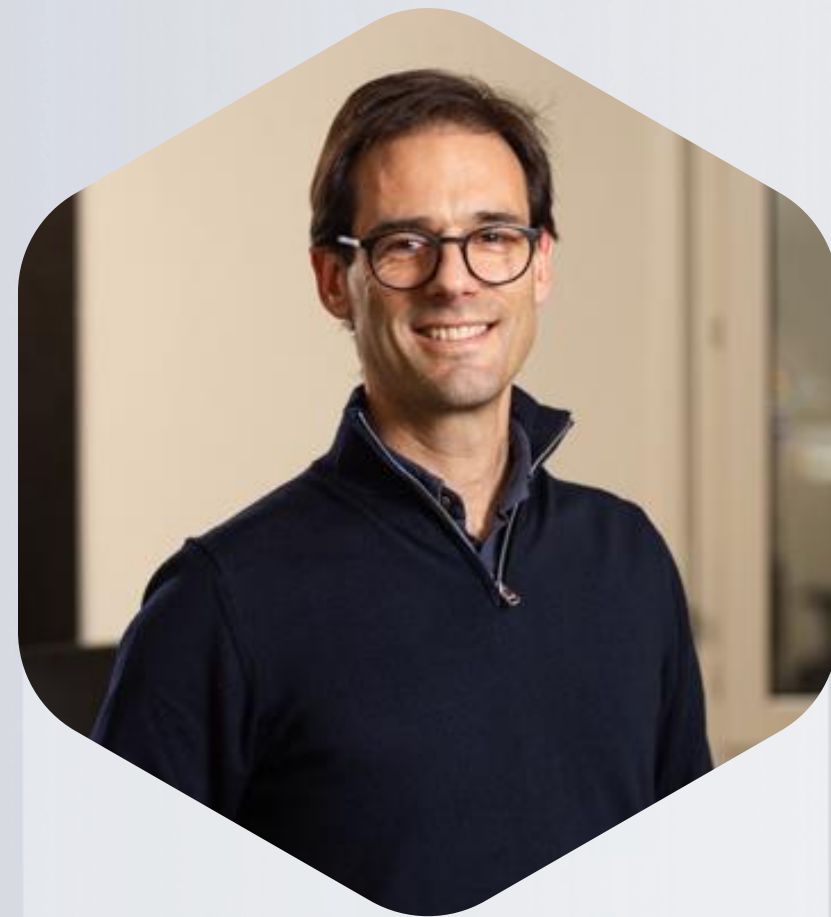
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Exclusive roundtable

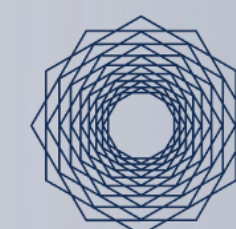
Exclusive roundtable on supply chains in the energy energy transition industry

Sign up here here



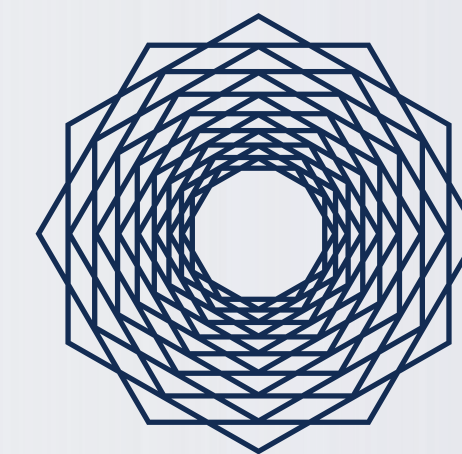
Discuss Your Business Case

Get in touch



*The future of supply chain
awaits*

Are you ready?



eyeon